

Iowa Department of Natural Resources
Wastewater Section
Construction Permit Application
SCHEDULE E, Wastewater Pump Station

DATE PREPARED	PROJECT IDENTITY	DNR USE
DATE REVISED		PROJECT NO.
		PERMIT NO.

1.

Design Basis	Initial	Design Year ()
Residential Area, Acres		
Population, Persons		
PHDW Flow, MGD		
Industrial Area, Acres		
PHDW Flow, MGD		
Other _____, Acres		
PHDW Flow, MGD		
Peak Hourly Infiltration, MGD		
Peak Hourly Inflow, MGD		
Total PHDW Flow, MGD		
Total PHWW Flow, MGD		

2. Provide pump information

Pump No.	Type	Opening (in)	HP	Capacity GPM	TDH (ft.)		Operating Level	
					Computed	Rated	On	Off
1								
2								
3								
4								
5								
Sump								

Are pumps specified as being capable of passing three-inch diameter spheres? Yes ☐ No ☐

Can remaining pumps handle PHWW flow with largest pump out of service? Yes ☐ No ☐

3. Wet-well effective volume _____ gallons. Maximum retention time: Initial flow _____ minutes.
Design flow _____ minutes.

4. Is forced air ventilation provided? _____
 Continuous: wet-well _____ dry-well _____ Intermittent: wet-well _____ dry-well _____
 dry-well _____ air changes/hour dry-well _____ air changes/hour

Are spark-proof materials specified? Yes ☐ No ☐

5. Force main: Is profile of force main provided? Yes ☐ No ☐

Size _____ in. Length _____ ft. Detention time at ADW design flow _____ hours.

Pipe material _____ Joint _____

Minimum cover _____ ft. Minimum velocity _____ fps

Number of high points _____ Are air relief valves provided? Yes ☐ No ☐

Number of thrust blocks provided? _____ At location(s) _____

Is pressure test specified? Yes ☐ No ☐ Does installation conform to AWWA C600? Yes ☐ No ☐

If no, explain _____

6. Are valves provided on the suction & discharge lines? Yes ☐ No ☐

Type: Discharge _____ Suction _____

7. Is an alarm system provided? Yes ☐ No ☐ Type _____

Indicate where audio/visual warning signals will be located _____

8. Method of pump control _____

9. Are the pumps protected from clogging? Yes ☐ No ☐

Method of cleaning _____

Method of pump removal _____ Are lifting hook/arms provided? _____

10. Are permanent emergency piping bypass connections provided? _____

Is an emergency power supply available? _____

Describe station operation in an emergency (equipment, piping, bypass, etc.) _____

11. Is the wastewater pump station located in a floodplain? Yes ☐ No ☐

Elevation of 100 year flood (MSL) _____ Elevation of 25 year flood (MSL) _____